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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/870,116	05/30/2001	Gregory S. Peterson	74318-9002-01	6530
23409	7590	02/25/2004	EXAMINER	
MICHAEL BEST & FRIEDRICH, LLP 100 E WISCONSIN AVENUE MILWAUKEE, WI 53202			FLANIGAN, ALLEN J	
			ART UNIT	PAPER NUMBER
			3753	
DATE MAILED: 02/25/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/870,116

Applicant(s)

PETERSON ET AL.

Examiner

Allen J. Flanigan

Art Unit

3753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 13 is/are allowed.
- 6) ☒ Claim(s) 1-7, 9, 10 and 12 is/are rejected.
- 7) ☒ Claim(s) 8 and 11 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

Claims 1-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term “flange” as used in the claims and specification is contrary to the accepted meaning of the term. Flange is a protruding rim or lip used, in the case of heat exchangers of the shell type, for sealing and assembly means. What applicant calls a “flange” is actually a short annular shell section designed to be attached (perhaps by means of flanges, such as flange 168 of the shell) between the shell and the usual manifold/tube sheet assembly.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 7, 9, 10, and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Hedrick.

Hedrick shows a heat exchange device including a shell 1 with a closed end having a coupling 13 adjacent thereto. Atop the open end of the housing an annular pipe section is mounted that has a second coupling 8. This structure reads on the claims, since the terms “steam inlet” and “condensate outlet” are statements of intended use only, not entitled to weight as structural limitations. At most, they require the couplings of Hedrick be capable of

serving as either inlets for steam or outlets for condensate, as Hedrick's couplings clearly are.

Regarding claim 7, the upper face of the annular section to which coupling 8 is attached reads on the recited "seat portion", as it clearly receives the faceplate 4 coupled to the tube bundle. Regarding claim 12, the recitation therein ("is located above") gain cannot distinguish, since it concerns the intended orientation of the claimed device in use.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hedrick in view of Mekler.

As shown by Mekler, it is well known in the art to employ thermal insulation in heat exchangers to minimize heat loss. Using an outer casing to retain the insulation is also known. Thus, it would have been obvious to one of ordinary skill in the art at the time the instant invention was made to provide this feature in the exchanger of Hedrick.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hedrick in view of Mekler, further in view of applicants' admission.

Applicants admit in their discussion of the background of the invention that the use of stainless steels to make heat exchangers for use in certain applications is known. Thus, it would have been obvious to one of ordinary skill in the art at the time the instant invention was made to form the outer casing 37 taught in Mekler as applied to the exchanger of Hedrick out of stainless steel for appearance or sanitary purposes, as is known in the art.

Claims 8 and 11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 13 is allowed.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The remaining references show various tube in shell heat exchanger designs with condensate or fluid outlets provided at one end of the shell.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allen J. Flanigan whose telephone number is (703) 308-1015. The examiner can normally be reached on M-F 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Scherbel can be reached on (703) 308-1272. The

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fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Allen J. Flanigan
Primary Examiner
Art Unit 3753

AJF